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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/661,735 | 09/11/2003 | Jian Zhang | | 8299 |

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EXAMINER

FIDEI, DAVID

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| ART UNIT | PAPER NUMBER |
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3728

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/661,735 | ZHANG ET AL | |
| | Examiner | Art Unit | |
| | David T. Fidei | 3728 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Nowhere in the specification is it defined what is “rough enough” (claim 1, 2nd to last line) or “not smoothly planar” (claims 9 and 11) to prevent the bottom surface from sucking the corresponding top surface of the pick up cap. The specification is non-enabling in this capacity.

Also, with regard to claim 1 it is not seen how the spacers are constructed to be perpendicular to one another.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1 9 and 11, it is not clear what the scope or content of a “surface rough enough” or “not smoothly planar” (claims 9 and 11), so as to prevent the bottom surface from sucking a corresponding top surface is. The same also applies to a bottom surface roughened or having tiny protrusions to provide recesses from a micro viewpoint, claim 12. The specification is silent regarding these parameters, providing no guidance as to what is encompassed by this language.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-12 are rejected under 35 U.S.C. 102(a/b) as being anticipated by Admission. Admission discloses the claimed subject matter for hard trays including a bottom portion that is “relatively” smooth, see paragraph [0004], last line. Since the term relatively implies a degree of not smoothly planar along with roughness to some extent, it is submitted Admission discloses a bottom surface being rough (claim 1), not smoothly planar (claims 9 and 11) and having tiny protrusions in rough form (claim 10), to the extent claimed and disclosed.

Since the record is not clear which what statute the Admission constitutes prior art, the Examiner has applied the ones that appear most applicable.

Response to Arguments

6. Applicant's arguments filed May 23, 2005 have been fully considered but they are not persuasive. In response to the rejections applied under 35 U.S.C. 112, first and second paragraph, applicant avers there is no attempt on their part to introduce how to make the invention (i.e., a bottom surface rough so that sticking to an underlying cap does not occur) nor is it applicant's intent to advise one what the scope or content of the invention (i.e. the aforementioned surface parameters) is, see remarks page 6, part 1), last line in bold. Citing *Hybritech v. Monoclonal Antibodies Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986) presumably as license that an example of specific parameters regarding rough degree of the bottom surface does not need to be provided. The Examiner finds applicant's reliance on one “skilled in the art” as a caveat to supply an enabling disclosure to be misplaced.

Art Unit: 3728

There is not one shred of evidence supplied by applicant that one skilled in the art has the well-known knowledge alleged. In *Hybritech v. Monoclonal Antibodies Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986) there was a known process for producing monoclonal antibodies that was identified. In the present instant applicant identifies no known process used for making surfaces, of the type and nature that embodies hard trays, so that they do not stick together. Nor are any processes or mechanisms described for roughening analogous surfaces so that they don't stick together. Applicant appears to be implying that one skilled in the art just figure it out. While enablement does not preclude any experimentation, the question is whether the experimentation would be undue, M.P.E.P. 2164.01.

The factors to consider whether any necessary experimentation is undue include factors such as A) the breadth of the claims, B) the nature of the invention, C) the state of the prior art, D) the level of ordinary skill, E) the level of predictability in the art, F) the amount of direction provided by the inventor, G) the existence of working examples & H) the quantity of experimentation needed to make or use the invention based on the content of the disclosure, M.P.E.P. 2164.01.

In the remarks applicant blatantly states their intent is not to "tell what is the scope and content of surface rough enough" see remarks page 6, part 1), last line in bold. By applicant's own admission one skilled in the art does not know what item A (the breadth of the claims) embodies. It is believed this alone would entail undue experimentation.

One skilled in the art would have to find the conventional trays, wherever that may be. Contacting manufacturers of BGA trays and locate those of the type shown as prior art. Next one would have to determine the trays that stick to the caps of sockets in underlying trays when handled by an automatic tool or other means. It is not known if this would vary by how many trays are stacked on top one another, how long the trays have been stacked, how much time the surfaces have taken to "seat" or whether the parameter is dependent on how fast one tray is removed from another. A host of experimentation would appear necessary just to isolate the problem in as much as is disclosed. Beyond that one would need to determine at what point sticking occurs and then roughen or modify the surface so that it does not occur. One would have to explore different materials on a microscopic level (based upon the breadth of claim 10) to see at what point sticking would not occur, incidentally or intentionally. Depending upon smoothness,

Art Unit: 3728

or finish, one would expect a high level of unpredictability, requiring even more experimentation because it is not known (applicant has identified nothing nor is anything of record) showing sticking can be prevented by microscopic variations or materials used for hard trays in this art.

In view of this brief analysis provided by the Examiner, it is evident that at the very least A) the breadth of the claims, B) the nature of the invention, C) the state of the prior art, E) the level of predictability in the art, F) the amount of direction provided by the inventor, G) the non-existence of working examples ; and H) the quantity of experimentation needed to make or use the invention based on the content of the disclosure all lead one to the conclusion that undue experimentation would be required of one skilled in the art to accomplish enablement based on the sufficiency of the present disclosure.

Furthermore, one skilled in the art would not have been reasonably advised by applicant what the scope or content of the claims embody. The statement of disregard in this capacity would make the admitted prior art makers uncertain if their inventions were violating the claim scope in as much as is disclosed. The examiner's reviewing authority has stated that the second paragraph of 35 U.S.C. 112 requires a claim to particularly point out and distinctly claim the subject matter which applicant regards as his or her invention. Under *In re Hammack*, 166 USPQ 204 (CCPA 1970) and *In re Moore*, 169 USPQ 236 (CCPA 1971), claims must be analyzed to determine their metes and bounds so that it is clear from the claim language what subject matter the claims encompass. This analysis must be performed in light of the applicable prior art and the disclosure. The definiteness of the claims is important to allow others who wish to enter the market place to ascertain the boundaries of protection that are provided by the claims. *Ex parte Kristensen*, 10 USPQ 2d 1701, 1703 (PTO Bd. Pat. App. & Intf. 1989).

According it is maintained the disclosure is deficient under 35 U.S.C. 112, first and second paragraph.

Conclusion


7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3728

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the Examiner concerning the merits of the claims should be directed to David T. Fidei whose telephone number is (571) 272-4553. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on (571) 272-4562.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David T. Fidei
Primary Examiner
Art Unit 3728

dtf
August 8, 2005